NEW CLAIMS
(CLEAN VERSION)

78. (new) A method of forming a crosslinked coating on a surface of a medical device, the coating imparting improved biocompatibility characteristics to the surface, the method comprising the steps of:

(a) providing the medical device, the device having a suitable biomaterial forming the surface, the biomaterial comprising unsubstituted amide moieties;
(b) combining the amide moieties with an amine forming agent to form amine moieties;
(c) providing two or more biomolecules, the biomolecules comprising an amine moiety and a 1,2-dihydroxy moiety, combining a periodate with the biomolecules to oxidize the 1,2-dihydroxy moieties to form aldehyde moieties;
(d) combining the biomolecules with the surface;
(e) allowing the aldehyde moieties to combine with the amine moieties to form imine moieties; and
(f) reacting the imine moieties with a reducing agent to form amine linkages, the amine linkages immobilizing and crosslinking the biomolecules on the surface, the immobilized and crosslinked biomolecules forming the coating.

79. (new) The method of claim 78, wherein the periodate comprises at least one of periodic acid, sodium periodate, alkali metal periodates, and potassium periodate.

80. (new) The method of claim 78, wherein the periodate is combined with the 2-aminoalcohol moieties in an aqueous solution having a pH between about 4 and about 9.

81. (new) The method of claim 78, wherein the periodate is combined with the 2-aminoalcohol moieties in an aqueous solution having a temperature between about 0 and about 50 degrees Celsius.

82. (new) The method of claim 78, wherein the oxidizing step is performed in the absence of light.

83. (new) The method of claim 78, wherein the biomolecules and the surface are combined in an aqueous solution having a pH between about 6 and about 10.

84. (new) The method of claim 78, wherein the biomolecules and the surface are combined in an aqueous solution having a temperature between about 0 and about 50 degrees Celsius.

85. (new) The method of claim 78, wherein the reducing agent comprises at least one of sodium borohydride, sodium cyanoborohydride, and amine borane.

86. (new) The method of claim 78, wherein the reducing agent is combined with the imine moieties in an aqueous solution having a pH between about 6 and about

10.

87. (new) The method of claim 78, wherein the reducing agent is combined with the imine moieties in an aqueous solution having a temperature between about 0 and about 50 degrees Celsius.